FOOD SCIENCE AND DIETETICS 1
FOOD SCIENCE 1 (new name)
STUDENT PROFILE

Course Code - 5757

Student's Names	**Date**	**Teacher's Name**	**Date**

Complete the student profile by inserting the representative letter in the space provided and completing all other information requested.

E – Exceeds Performance Requirements (80-100): Work that is above the criteria of the standard.
M – Meets Performance Requirements (70-79): Work that meets the criteria of the standard.
B – Below Performance Requirements (69 and below): Work that fails to meet the criteria of the standard.

B. INTRODUCTION TO FOOD SCIENCE	**E**	**M**	**B**
1B1. Explain how changes in society have impacted food science and related careers.			

1. Identify major historical events that changed the role of food science in society. 2. Illustrate how historical events changed how food is prepared, packaged, and processed. 3. Identify new foods developed to solve consumer problems/issues. 4. Contrast techniques developed to prepare foods. (cryogenic, freeze drying) 5. Examine careers that developed as a result of changes in food science. 6. Analyze trends to determine future changes in food science.	**Comments:**

C. SANITATION AND SAFETY	**E**	**M**	**B**
1C1. Explain safe and sanitary measures used to test food products in a laboratory setting.			

1. Identify the three major types of food contaminants: biological, chemical and physical. 2. Differentiate between food-borne illness, food spoilage and food sanitation. 3. Identify microbial organisms that can cause food-borne illness to include toxins, pathogens, and parasites. 4. Examine procedures for safety and sanitation in a food science laboratory. 5. Compare and contrast government agencies in the United States and abroad that regulate food products. (OSHA, FDA, DHEC, WHO)	**Comments:**

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6. Model appropriate safe and sanitary behaviors in the food laboratory.				
D. THE SCIENTIFIC METHOD		**E**	**M**	**B**
1D1. Explain the scientific method, including the processes and skills of scientific inquiry, to develop understanding of science content.				
1. Define the scientific method. 2. Outline the steps in the scientific method. 3. Apply the scientific method in a designed experiment. 4. Analyze the collected data. 5. Evaluate the hypothesis. 6. Write a group conclusion.	**Comments:**			
E. CHEMISTRY		**E**	**M**	**B**
1E1. Explore the basic chemistry of food science.				
1. Define chemistry as it applies to food science. 2. Explain the nature of acids and bases. 3. List the properties of water and the relationship to acids and bases. 4. Identify sources and forms of energy. 5. Differentiate how heat is transferred in cooking and preservation processes. 6. Compose a list of the differences between pure substances and mixtures.	**Comments:**			

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F. ORGANIC CHEMISTRY	E	M	B
1F1. Examine the elements of organic chemistry as it applies to food products.			
1. Define organic chemistry. 2. Identify the macronutrients. 3. Compare and contrast the classes of organic compounds. 4. Examine food labels to determine specific organic molecules. 5. Explain the functions of organic molecules in preparation of food products. 6. Create a list of foods that incorporate the different processes that change organic molecules when variances are applied.	**Comments:**		
G. FOOD PRODUCTS: PROCESSING, PRESERVATION, & PACKAGING	**E**	**M**	**B**
1G1. Explain the processing, preservation, and packaging of food products.			
1. Define processing, preservation, and packaging. 2. Identify methods used to process, preserve, and package food. 3. Develop a Hazard Analysis Critical Control Point (HACCP) plan to process, preserve, and package a selected food item. 4. Describe the relationship between processing, preservation, and packaging of food products. 5. Explain how to solve problems in the processing, preservation, and packaging of food items. 6. Recommend the appropriate method when processing, preserving, and packaging food.	**Comments:**		